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## Do Mandalas Exhibit Archetypal Patterns Based on Kellogg's MARI? A Pilot Study Les mandalas révèlent-ils des schémas archétypaux fondés sur le MARI de Kellogg? Une étude pilote

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### ABSTRACT

The Mandala Assessment Research Instrument (MARI) can be used to assess mandalas drawn by participants as part of the therapeutic process. This study investigated whether a set of 85 mandalas drawn over 15 years by the first author depicts archetypal patterns as defined by Kellogg's Great Round of archetypal stages in mandalas in the MARI and if these patterns relate to significant events in the person's life. The research questions are: (a) "Do archetypal patterns and MARI stages, as depicted in the MARI Great Round, appear in this dataset?" (b) "Do archetypal patterns correspond to significant events in the first author's life?" and (c) "Do certain archetypal patterns relate to certain significant events?" The results demonstrated that archetypal patterns exist in mandalas. With the appropriate training, counsellors could use mandalas and the MARI throughout the therapeutic process.

### RÉSUMÉ

Il est possible d'utiliser le *Mandala Assessment Research Instrument* (MARI) pour évaluer les mandalas tracés par des participants dans le cadre de la démarche thérapeutique. Les auteures de cette étude se sont demandé si un ensemble de 85 mandalas tracés sur 15 ans par la première auteure traduit des schémas archétypaux tels que les définit le grand cercle (*Great Round*) d'étapes archétypes de Kellogg dans son instrument MARI, et si ces schémas renvoient à des événements significatifs dans sa vie. Voici les questions abordées dans cette recherche : (a) « Est-ce que les schémas archétypaux et les étapes MARI, selon la description qui en est faite dans le MARI *Great Round*, se manifestent dans cet ensemble de données ? » (b) « Les schémas archétypaux correspondent-ils à des événements significatifs de la vie de la première auteure ? » et (c) « Est-ce que certains schémas archétypaux sont en lien avec certains événements significatifs ? » Les résultats obtenus semblent indiquer qu'il existe effectivement des schémas archétypaux dans les mandalas. Grâce à une formation appropriée, les conseillères et conseillers pourraient utiliser les mandalas et le MARI tout au long de la démarche thérapeutique.

*Mandala* is the Hindu Sanskrit word for sacred circle (Jung, 1968). Besides his work as a psychiatrist, Carl Jung had an interest in history. He explored the history of mandalas, their creation, and their presence throughout time and throughout many cultures (Jung, 1968, 1969, 1973/1989). He noted that people had created mandalas throughout history (e.g., Tibetan Mandalas, Southwest Stone Carvings, and Roman Catholic Rose Windows). During a difficult time in Jung's life, after his break with Freud, he discovered the use of creating mandalas daily as a means to aid himself in his recovery (Jung, 1969, 1973/1989). The majority of his mandalas are contained in his Red Book (Jung, 1973/1989, 2009).

Inspired by Jung's use of personal mandalas, this study explored whether a set of 85 mandalas drawn over 15 years by the first author depicted archetypal patterns as defined by Kellogg's Great Round of archetypal stages in mandalas in the Mandala Assessment Research Instrument (MARI). The study evaluated whether or not these patterns relate to significant events in the first author's life. The literature review delves into concepts of Jungian psychology, continues with Joan Kellogg's theory of the Great Round and the development of the MARI, and concludes with research utilizing mandalas and the MARI tool.

## Literature Review

### Jungian Principles

Jung described the psyche in terms of four levels: personal consciousness, personal unconscious, objective psyche or collective unconscious, and collective consciousness (Jung, 1968, 1969). Within these four levels, there are general and specialized structures. The two general structures are complexes and archetypal images. A complex is a group of ideas or images that are experienced with a common emotional charge. At the centre of a complex is an archetype or an archetypal image.

According to Jung (1968), archetypes are psychic phenomena that are primordial, universal patterns of the collective unconscious. Archetypes are unobservable as themselves because they are a pattern or a motif of psychic contents that consciousness has yet to explore, whereas archetypal images are representations of the actions of the archetype with its emotional feeling content and related life experiences. Many of these archetypal impressions of the action, emotion, and accumulated experience are meaningful to many people over time and have become part of the collective consciousness. Examples of archetypal images familiar to humankind are images of royalty, the Virgin Mary, Jesus, and the Buddha. The meanings of archetypes can be explored concerning religions, myths, and fairy tales. "Symbols present an objective, visible meaning behind which an invisible, profounder meaning is hidden" (Jacobi, 1959, p. 77). Archetypal images can be represented as symbols in the form of artwork or drawings, such as mandalas (Jung, 1968, 1969).

The personal parts of the psyche consist of four special structures that are also archetypes: the ego, the persona, the shadow, and the animus/anima (Jung, 1968). The *ego* is the principal complex that regulates conscious personality. The *persona* is that mask one presents to the world, which often relates to a role (e.g., parent, teacher, or researcher). The *shadow* is any part of one's self, positive or negative, that one cannot own and that resides in the unconscious. The *anima* is the feminine image in the psyche of a man, and the *animus* is the masculine image in the psyche of a woman.

According to Jungian theory, individuation is a lifelong process of self-realization in which a person experiences the material of the unconscious via dreams and shadow work to become an integrated, whole being (Jung, 1968). *Individuation* is a process of psychological differentiation during which the person develops their personality to their full potential, including strengths and limitations (Jacobi, 1959). This process involves intense work of self-reflection and dialogue between the ego and the Self (Jung, 1968). The central archetype is the Self, which regulates the entire psyche (Jung, 1968, 1969) to face the unconscious self (Jung, 1968).

In 1919, Jung discovered the essence of the mandala to be “‘Formation, Transformation, Eternal Mind’s eternal recreation.’ And that is the self, the wholeness of personality” (Jung, 1973/1989, p. 196). He discovered that “the mandala is a symbol of individuation” (Jung, 1968, p. 35) and a representation of the self (Jung, 1968, p. 357). Mandalas are symbols of unity and totality (Jung, 1969).

Jung’s patients created mandalas spontaneously and brought them to their analysis with him (Jung, 1968, 1969). As he observed, “Experience shows that individual mandalas are symbols of *order*, and that they occur in patients principally during times of psychic disorientation and re-orientation” (Jung, 1969, pp. 31–32). He determined that his clients were unaware that the images contained archetypal ideas that resulted from their unconscious at a given moment in time (Jung, 1968). Also, he realized and noted that mandalas “differ widely, according to the stage of therapeutic process; but certain important stages correspond to definite motifs” (Jung, 1968, p. 360). Working with patients in analysis, he used their mandala images in addition to using dreams, myths, fairy tales, and active imagination to support their individuation process (Jung, 1968, 1969).

### **Kellogg’s Great Round and the MARI**

Kellogg (1984) was intrigued initially by Jung’s theories and by the use of mandalas in therapy. She used mandala drawings as part of the therapeutic process to monitor change in psychiatric and clinical settings. She collected thousands of drawings and interpreted them based on colour, movement, and symbolism. She recognized patterns in the circular drawings with 13 basic structures, and she designed the “Archetypal Stages of the Great Round of the Mandala” (Kellogg, 1984, p. iii). The MARI was developed as a result of the application of this theory and of Kellogg’s experiences with the mandala art of clients. The MARI

Table 1  
*Kellogg's Original Stages of the Great Round*

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Stage 0	Clear light: Transpersonal space and the source of all being
Stage 1	Void: Deep unconscious, attachment, trust, and safety
Stage 2	Bliss: Passive/receptive, generative space; reflective, untapped potential
Stage 3	Labyrinth/spiral: Focused movement of energy
Stage 4	Beginning: Symbiotic, narcissistic space
Stage 5	Target: Defense, boundary setting
Stage 6	Dragon fight: Struggle, ambivalence, separation, shadow issues, confrontation of opposites
Stage 7	Squaring the circle: Integration, union of the opposites, commitment
Stage 8	Functioning ego: Self-identity, autonomy, individuality
Stage 9	Crystallization: Socialization, completion
Stage 10	Gates of Death: Acknowledgement of loss, return to the unconscious, endings
Stage 11	Fragmentation: Ego disintegration, chaos
Stage 12	Transcendent ecstasy: Change in consciousness, transformation

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is a registered trademark of MARI® Creative Resources (MARI®, n.d.), and its current use is proprietary unless authorized via their training process. The creation of mandalas, which is part of the MARI analysis, provides data on a client that contribute to the understanding of the client's world view, issues, problems, and concerns (Couch, 1997; Frame, 2006; Kellogg, Mac Rae, et al., 1977). The trained clinician can use the information obtained by a mandala drawing and the MARI tool in support of the development of treatment plans, goals, and objectives. The use of the creation of the mandalas and of the MARI tool can then be used at a later time to evaluate change and/or progress in the treatment plan.

The MARI requires additional training for clinicians (MARI®, n.d.). This training includes how to evaluate mandalas against Kellogg's theories, how to use archetypal design cards, colour cards, and MARI stages, and how to apply this information to the counselling and therapeutic process. This training is not limited to creative arts therapists but is available to all mental health clinicians, including counsellors, social workers, and psychologists.

Kellogg's Great Round depicts stages of development at any given time of a person's life (Cox, 2003; Kellogg, 1984). The stages represent an individual's process of psychological maturation (Kellogg, 1992), an example of the individuation process. The model is depicted as a circle that reads in a clockwise direction with Stage 0 in the middle and Stage 1 at 6 o'clock. The stages above the horizon line reflect conscious experiences and the stages below that line depict unconscious

Table 2  
*Kellogg's Revised Stages of the Great Round*

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Stage 0	Core
Stage 1	Entry
Stage 2	Bliss
Stage 3	Energy/path
Stage 4	Beginnings
Stage 5	Target
Stage 6	Struggle
Stage 7	Independence
Stage 8	Identity
Stage 9	Group alignment
Stage 10	Endings
Stage 11	Disintegration
Stage 12	Transformation

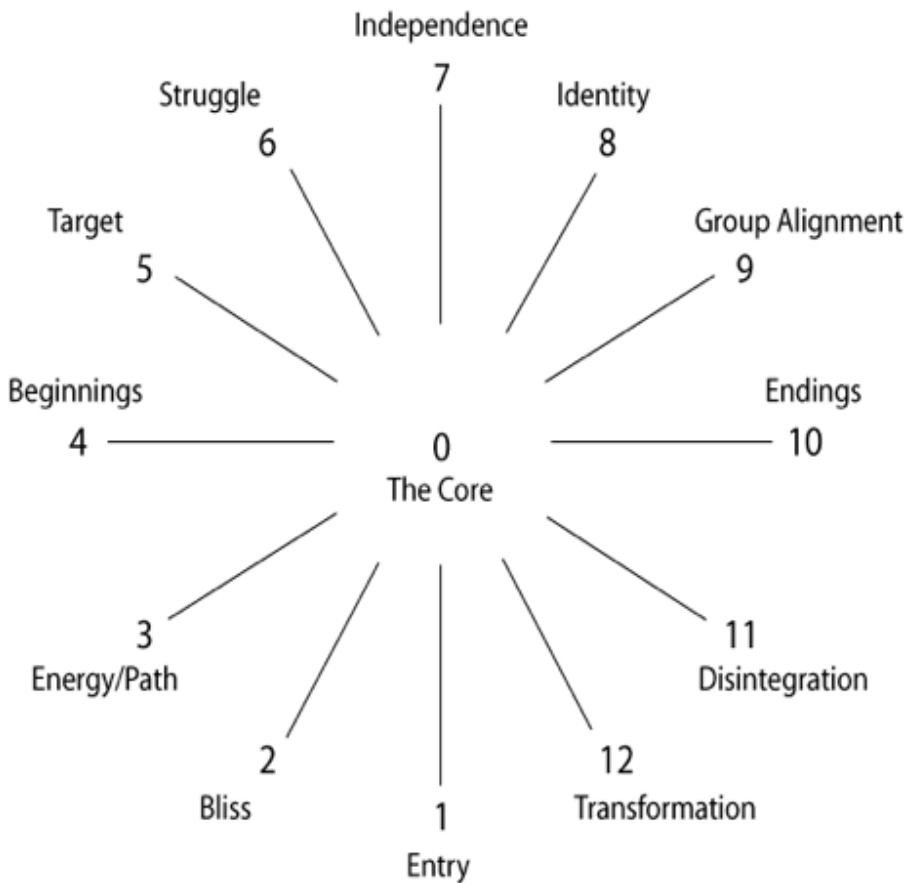
experiences. The original stages (Cox, 2003; Cox & Frame, 1993; Kellogg, 1984; Kellogg & Di Leo, 1982) can be found in Table 1.

The updated stages of the MARI Great Round (S. Takei, personal communication, August 27, 2014; Takei, 2014) as they are used today are labelled in Table 2 and illustrated in Figure 1.

The application of the MARI involves Kellogg's colour theory (Cox & Frame, 1993; Kellogg, 1984, 1992). Kellogg (1984) believed that the choice of colour is very important in the creation of a personal mandala. "Actual use of a particular color or its absence may point to problem areas" (Kellogg, 1984, p. 29). Her colour theory is based on sources in anthropology, biology, physics, and psychology (Kellogg, 1984, 1992).

Historically, the MARI consists of 39 archetypal design cards, 40 colour cards, and 13 stages (Cox, 2003). Each MARI stage consists of three archetypal patterns or symbols (Cox, 2003; Frame, 2002; Kellogg, 1984). Clients are asked to create a mandala drawing using a box of Holbein oil pastels (either the 36- or the 48-item set), a piece of 12 by 18 in. white paper with a 10.5 in. circle pre-drawn with a pencil in the centre. Then the client is asked to pick six archetypal design cards, six matching colour cards (Cox, 2003), one card they dislike, a colour card, and an additional colour card to make the dislike card better (Cox, 2003; Frame, 2002). The cards are put on the chart of the Great Round showing the client's selections. Interpretations are made based on the choice of archetypal design cards, colours, and stages in the Great Round based on Kellogg's MARI theory and process (Cox, 2003; Frame, 2002; Kellogg, 1984). Knowledge of the Great

Figure 1  
*MARI Great Round Stages*



*Note.* Used with permission (S. Takei, personal communication, August 27, 2014).

Round and its use with the MARI offers evidence to note changes and issues in a person's life that can facilitate therapeutic change (Couch, 1997; Frame, 2006; Kellogg, Mac Rae, et al., 1977).

### **Research on Mandalas and the MARI**

The literature on mandalas supported the notion that the creation of mandalas was healing in nature (Frame, 2000; Henderson et al., 2007; Snyder, 1999), in increased self-awareness (Pisarik & Larson, 2011), and in reduced stress and anxiety (Babouchkina & Robbins, 2015; Schrade et al., 2011; van der Vennet &

Serice, 2012). Initial research based on Kellogg's mandala theory involved studies that inspired the use of mandalas as a measurement of change in psychotherapy (Bonny & Kellogg, 1976; Kellogg, Mac Rae, et al., 1977). These studies support what Jung observed in clients: The mandala created by an individual at any time is a reflection of the individual's psyche at that moment (Jung, 1968).

Research studies on the ways that groups of people apply the MARI card test focused on frequency data of the typical mandala drawings drawn by that population and on what MARI stages were involved. Populations that have been studied include general groups such as artists versus non-artists (Cox & Frame, 1993), college students (Frame, 2002), couples (Frame, 2006), and caregivers facing burnout (Potash et al., 2014).

In her studies on the ways that groups of people use mandalas and the MARI, Frame (2002, 2006) used the tools she used in therapy in support of her work with couples and college students, respectively. For example, Cox and Frame (1993) asked if there was a specific artist's profile that defined the creative personality compared to that of a non-artist. The MARI card test was administered to 70 artists and 70 non-artists. The results supported that the stages artists selected were significantly different than those selected by non-artists. The artists selected Stages 0, 6, and 7, which are clear light and source, dragon fight, and squaring the circle, respectively. The artists focused on internal healing and dealing with conflict. The chosen stage for the control group was Stage 9, called group alignment and dealing with socialization and completion. The non-artists focused on external events.

Potash et al. (2014) used a mixed-methods approach to investigate burnout and compassion fatigue in 62 hospice caregivers. They categorized mandalas using Kellogg's Great Round and descriptive writing from the participants and compared results to the Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996). The mandalas were created during art therapy supervision. Four MARI stages were most common among hospice caregivers, although all stages were observed. These four MARI stages are 2, 5, 6, and 11, related to bliss, the target, dragon fight, and fragmentation, respectively. Potash et al. (2014) described the characteristics of stages that focused on skills and coping mechanisms that assist with exhibiting lower burnout. MARI stages that were associated with lower burnout are 4, 5, 7, 8, and 12, related to the beginning, the target, squaring the circle, functioning ego, and transcendent meanings, respectively.

Populations that have been studied include clients with specific diagnoses such as ADHD (Green et al., 2013), cancer and cardiac issues (Bruscia et al., 2007), dementia (Couch, 1997), and dissociative identity disorder (Cox & Cohen, 2000). For example, Bruscia et al. (2007) studied 132 cardiac and 63 cancer patients ( $N = 195$ ) in an in-patient setting. They were interested in whether the specific patient population had a characteristic design and colour choice as determined by the MARI card test. Their research determined that there were

characteristic designs and colour choices for these two groups of patients. For example, the most preferred stage among both the cardiac patients and the cancer patients was 9 (crystallization; 29% cardiac, 32% cancer). The cardiac patients' next preferred stages were 1 (entry; 13%) and 5 (target; 13%). At the same time, the cancer patients' next preferred stages were 11 (disintegration; 23%) and 12 (fragmentation; 13%). Both groups rejected Stages 11 (34% cardiac, 20% cancer) and 0 (the core; 10% cardiac, 19% cancer). The cardiac patients also rejected Stage 10 (endings; 16%), whereas the cancer patients rejected Stage 2 (bliss; 20%). According to Bruscia et al. (2007), the data suggested that the conflict observed with the choices of Stage 11 by the cancer patients is a conflict on whether to face the reality of the cancer diagnosis or to transcend it by continuing traditional medical intervention or alternative approaches.

For example, in Bruscia et al.'s (2007) study, the cardiac group's treatment was more short term and concrete, with surgery and recovery, and therefore they rejected Stage 11. The cancer patients, therefore, saw the positive aspect of Stage 11 (disintegration), with treatment and the potential for healing versus seeing only the negative aspects of Stage 11, leading to death by the disease. Both groups did see the negative aspect of Stage 11, but only people in the cancer groups saw the positive aspects of Stage 11 with longer treatments and a chance for remission. The choices and rejections of stages relate to the specific groups' experiences as defined by the theory of the Great Round (Bruscia et al., 2007). For example, the most preferred choice of Stage 9, crystallization, related to a person's need to accomplish goals and to realize one's mission. With both diagnoses, patients faced the reality of reflecting on their goals and on life's mission.

Using the 13 stages of the Great Round, Couch (1997) categorized 471 mandala drawings of 71 adults diagnosed with dementia. The most frequently drawn stages were 5 (target), 11 (fragmentation/disintegration), 6 (dragon fight/struggle), and 1 (the void). She noted colour usage and its importance at each stage. Couch suggested using this information to assist the therapist in understanding therapeutic issues promptly. Cox and Cohen (2000) categorized the spontaneous drawings of clients with dissociative identity disorder based on their Ten Category Model and Kellogg's Great Round. They identified six stages in the Great Round that were characteristic for this population: 2 (bliss), 3 (labyrinth), 4 (beginning), 5 (target), 9 (crystallization), and 11 (fragmentation).

Previous research focused on the use of mandalas in general and on the application of the MARI on specific populations. In the field of art therapy, Kaiser and Deaver (2013) put forth a call to art therapy researchers to include the study of art therapy assessments in their research agendas. The MARI is an art therapy assessment tool. Validity and reliability studies were designated as important avenues of study for art therapy assessments. To add value to this research agenda, the current study is a validity study for the use of mandalas and of Kellogg's theory of the Great Round.



Like Cox and Frame (1993), Couch (1997), and Potash et al. (2014), this study investigated whether a set of 85 mandalas drawn over 15 years by the first author depicts archetypal patterns as defined by Kellogg's Great Round of archetypal stages of the MARI in mandalas and if these patterns relate to significant events in her life. The authors wanted to examine empirical evidence to support Kellogg's (1984) theory about mandala archetypal patterns and stages in the Great Round as related to a person's life and life experiences.

The research questions in the current study are: (a) "Do archetypal patterns and MARI stages, as depicted in the MARI Great Round, appear in this dataset, more frequently at a greater percentage than just by chance?" (b) "Do archetypal patterns correspond to significant events in the first author's life more than just by chance?" and (c) "Do certain archetypal patterns relate to certain significant events?" We gathered descriptive data on the mandalas, such as type of art medium, size, colour, title, and date. The research hypotheses are:

- a. There are archetypal patterns and MARI stages in the mandala set that will correspond to patterns in the MARI Great Round more than just by chance.
- b. The archetypal patterns of Kellogg's Great Round in the MARI assessment that are found in this dataset correspond to significant events in the first author's life as defined by her timeline for this period more than just by chance.
- c. Certain archetypal patterns of Kellogg's Great Round in the MARI assessment that occur in this dataset relate to certain types of significant life events according to the literature.

## Method

### Participants

This set of data consists of a set of mandalas that covers 15 years and a corresponding timeline of significant events. The first author, a Caucasian adult female, created the mandalas in support of her personal growth, either individually or in workshops. There are 85 mandalas in the set.

### Procedures

The college Institutional Review Board (IRB) approved the study. The total number of mandalas that were analyzed was 93 (i.e., the pre-existing set of 85 mandalas plus eight standard mandalas that were used for reliability and validity evaluation). The eight standard mandalas were created with Holbein oil pastels on 12 by 12 in. paper inside an 11 in. circle based on eight pre-chosen archetypal patterns of the MARI Great Round. The 93 mandalas were randomly assigned a number and then mixed up.

Each mandala was rated independently by two MARI practitioners (not the authors) who are trained in Kellogg's Great Round and MARI assessment. The raters were then trained by the first author to use the analysis form for this study. The form contained the 39 archetypal patterns of Kellogg's Great Round depicted in a random order, with each pattern given a random number for identification. The 39 patterns were used with permission (S. Takei, personal communication, August 27, 2014). The form required the MARI rater to identify the mandala ID, the archetypal mandala patterns, the art medium, the size, and the colour usage. Descriptive statistics of frequency and percentages were calculated for medium, size, and colour usage.

The authors used crosstabs, contingency tables, and chi-square analyses to evaluate the hypotheses. They coded the timeline for significant events for these 15 years. Significant life events were defined as marriage, divorce, births, deaths, job changes, moves, and so forth. The authors identified these significant events with the corresponding date or period in frequencies and percentages. They compared the codes with the same period that archetypal patterns and stages were created. They evaluated the results using an alpha level of .05, which would indicate a statistical significance rather than chance.

### **Interrater Reliability**

The interrater reliability was determined separately for the eight standard mandalas and for the set of 85 pre-existing mandalas concerning the determination of the mandala pattern. For the eight standard mandalas, a correlation of 0.997 was calculated for the determination of archetypal mandala pattern based on Rater 1 and Rater 2. A correlation of 0.7 or higher is needed for both raters to be determined reliable (Stemler, 2004). This correlation value is greater than the required 0.7, so both raters can be judged to be reliable. For the 85 pre-existing mandalas, a correlation of 0.267 was determined based on Rater 1 and Rater 2. This correlation value is less than the required 0.7, so the results of both raters were evaluated independently, then compared using consensus agreement, crosstabs, and contingency tables.

The consensus percent agreement for the determination of archetypal mandala patterns for Rater 1 and Rater 2 was 34%. Therefore, crosstabs, contingency tables, and chi-square analyses were used to evaluate the hypotheses related to archetypal mandala patterns and to produce more confidence in the results. Consensus agreements were determined for all other parameters evaluated by the two raters. The parameter of different media used and colour usage had consensus agreements ranging from 80 to 96% and 72 to 93%, respectively, for both raters. Therefore, average values based on both raters for frequency and on percentage for the medium used and the colour usage were tallied. The total number of colours used, the average number of colours per mandala, and the minimum and the maximum number of colours used were calculated to describe the mandalas. The

parameter for mandala size as measured in inches had a consensus agreement of 41%, so each rater's results were evaluated separately.

The use of the crosstabs and the contingency tables analyses allowed for the evaluation and use of the results by both raters because of the high confidence in the initial interrater reliability for the standard set. These results yielded the same top four categories of archetypal patterns and stages that were present as determined by both raters independently. The chi-square analyses supported the notion that these results were statistically significant for each rater. Therefore, the consensus results for each rater turned out to be 100% for the four patterns and for the MARI stages exhibited when using the crosstabs, the contingency table, and the chi-square results.

### **Descriptive**

The medium used for the pre-existing mandala set ( $N = 85$ ) was 60.6% pastels, 18.2% coloured pencils, 5.3% mixed media, 2.4% paint, and 1.8% pencil. The average number of colours used per mandala was five, with a maximum number of colours of 10 and a minimum number of one. The colors were predominately a combination of yellow (78.8%), red (70.6%), blue (66.5%), green (61.2%), purple (46.5%), black (42.4%), pink (40.6%), brown (22.9%), white (17.4%), and grey (5.9%). The mandalas consisted of circles drawn on square paper. The size of the mandalas, measured in inches, was the size of the circle diameter. The size of the mandalas ranged from 7 to 12 in. Titles or words were written on 16% of the 85 mandalas, and 50% of the written titles were simply "mandala." No other descriptive words were included on the 85 mandalas.

### **Evaluation of Hypotheses**

Cross-tabulations producing a contingency table of archetypal pattern versus rater(s) was determined to look at the interrelationship between the two variables—e.g., archetypal pattern versus rater(s)—and to look for interactions between them. For the nominal data, the lambda coefficient and the uncertainty coefficient were measured to determine the strength of association of the cross-tabulations of the variables, the mandala pattern, and the rater. The lambda coefficient was .126 ( $p = .001$ ) for the cross-tabulations between the variables, the archetypal pattern chosen, and the rater. This lambda coefficient described a significant association of the cross-tabulations between the variables, the archetypal pattern chosen, and the rater. In other words, the two variables were dependent, and the frequencies in the archetypal mandala pattern rows varied significantly between rows. In this cross-tabulation analysis, the frequency and the percentages were determined for each archetypal mandala pattern of the Great Round for the dataset of 85 mandalas as per Rater 1 and Rater 2.

This contingency table allowed us to see at a glance the proportions of the mandala archetypal patterns chosen that were the highest and the most significant

for both raters. There were four archetypal patterns in the mandala set that correspond to patterns in the MARI Great Round that were the highest and the most significant for both raters. They both agreed with each other concerning these results, of which four patterns were the highest and the most significant. These four patterns were 13 (5.9% Rater 1, 9.4% Rater 2), 27 (16.5% Rater 1, 12.9% Rater 2), 33 (7.1% Rater 1, 9.4% Rater 2), and 34 (10.6% Rater 1, 11.8% Rater 2).

Also, the authors analyzed these archetypal pattern results by a chi-square analysis to evaluate hypothesis #a for Raters 1 and 2, respectively, using the null hypothesis #a. The null hypothesis #a related to archetypal patterns is as follows: "There are no archetypal patterns in the mandala set that will correspond to patterns in the MARI Great Round more than just by chance." Supposing that all 39 patterns depict all typical patterns in a person's life, each pattern was assumed to occur equally. A chi-square goodness of fit test was calculated comparing the frequency of occurrence of each value of the typical archetypal pattern as determined by Raters 1 and 2, respectively. It was hypothesized that each archetypal pattern would occur an equal number of times. Significant deviations from the hypothesized values were found for both Raters 1 and 2 ( $\chi^2(22) = 67.882, p < .05$ ;  $\chi^2(19) = 45.588, p < .05$ ), respectively. The Rater 1 frequency results—5.9%, 16.5%, 7.1%, and 10.6% for Archetypal Mandala Patterns 13, 27, 33, and 34, respectively—were more than just chance. The Rater 2 frequency results—9.4%, 12.9%, 9.4%, and 11.8% for Archetypal Mandala Patterns 13, 27, 33, and 34, respectively—likewise were more than just chance.

Based on the archetypal pattern results for both Raters 1 and 2, the cross-tabulations, and the chi-square analysis, the null hypothesis #a related to archetypal patterns can be rejected. Therefore, hypothesis #a can be accepted. There were four archetypal patterns (e.g., 13, 27, 33, and 34, with these random numbers for identification) in the mandala set that correspond to patterns in the MARI Great Round. These four archetypal patterns were represented by the mandalas in Figures 2, 3, 4, and 5, respectively.

Independently, cross-tabulations producing a contingency table of MARI stage versus rater(s) were determined in order to look at the interrelationship between the two variables (e.g., MARI stage versus rater[s]) and to look for interactions between them. For the nominal data, the lambda coefficient was measured to determine the strength of association of the cross-tabulations of the variables MARI stage versus rater. The lambda coefficient is .090 ( $p = .049$ , where  $p < .05$ ) for the cross-tabulations between the variables, the MARI stage, and the rater. This lambda coefficient described a significant association of the cross-tabulations between the variables, the MARI stage, and the rater. In other words, the two variables were dependent, and the frequencies in the MARI stage rows varied significantly between rows. In this cross-tabulation analysis, the frequency and the percentages of the MARI stages were determined for each archetypal mandala

pattern of the Great Round for the dataset of 85 mandalas as per Rater 1 and Rater 2.

This contingency table allowed us to see at a glance the proportions of the MARI stages that were the highest and the most significant for both raters. Multiple archetypal patterns can occur in one particular MARI stage. Since the consensus agreement between both raters was only 34% and since multiple archetypal patterns (i.e., 3) could appear in one stage, the archetypal patterns were also assigned the appropriate stages for comparison purposes for each rater independently. This step was a further check to assess the rater agreement and to answer the research questions.

This contingency table demonstrated that all stages of the Great Round except Stage 7 (squaring the circle) were represented in the mandala set as evaluated by both raters. However, there were four MARI stages in the mandala set that corresponded to stages in the MARI Great Round. Both raters agreed on these four stages. These four stages were Stage 2 (9.4% Rater 1, 20.0% Rater 2), Stage 6 (17.6% Rater 1, 15.3% Rater 2), Stage 8 (14.1% Rater 1, 14.1% Rater 2), and Stage 11 (16.5% Rater 1, 14.1% Rater 2).

These archetypal pattern results relate to MARI stages because each MARI stage consists of three archetypal patterns (Kellogg, 1984). The authors analyzed these archetypal pattern results by a chi-square analysis to evaluate hypothesis #a related to the MARI stages for Raters 1 and 2, respectively, using the null hypothesis #a. The null hypothesis #a related to the MARI stages is as follows: "There are no archetypal patterns in the mandala set that relate to the MARI Stage patterns of the Great Round."

Assuming that all 13 MARI stages depict all typical stages in a person's life, each stage was assumed to occur equally. A chi-square goodness of fit test was calculated comparing the frequency of occurrence of each value of the typical MARI stage as determined by Raters 1 and 2, respectively. It was hypothesized that each stage would occur an equal number of times. Significant deviations from the hypothesized values were found for Raters 1 and 2 ( $\chi^2(11) = 37.400, p < .05$ ;  $\chi^2(10) = 36.940, p < .05$ ), respectively. The Rater 1 frequency results—9.4%, 17.6%, 14.1%, and 16.5% for MARI Stages 2 (bliss), 6 (dragon fight/struggle), 8 (functioning ego/identity), and 11 (fragmentation/disintegration), respectively—were more than just chance. The Rater 2 frequency results—20.0%, 15.3%, 14.1%, and 14.1% for MARI Stages 2 (bliss), 6 (dragon fight/struggle), 8 (functioning ego/identity), and 11 (fragmentation/disintegration), respectively—likewise were more than just chance. Four MARI stages were represented.

Based on the MARI stage results for both Raters 1 and 2, cross-tabulations, and the chi-square analysis, the null hypothesis #a related to the MARI stages can be rejected. Therefore, hypothesis #a can be accepted. There were four MARI stages—2 (bliss), 6 (dragon fight/struggle), 8 (functioning ego/identity), and 11 (fragmentation/disintegration)—represented in the mandala set. The four MARI

stages corresponded to the four archetypal patterns (e.g., 13, 27, 33, and 34) in the mandala set in the MARI Great Round.

To analyze hypothesis #b, the results for the archetypal pattern analysis, in frequency and in percentage, were compared to a timeline of coded significant events and the dates of those events. First, the timeline was analyzed for significant events by qualitative thematic coding (Boyatzis, 1998; Creswell, 2014). These significant life events ( $N = 394$ ) over 15 years were coded into 11 categories with the following frequencies and percentage: car (2, 0.5%), family (149, 37.8%), friends (22, 5.6%), house (23, 5.8%), school (24, 6.1%), work (116, 29.4%), unemployment (7, 1.8%), spouse work (8, 2%), self (22, 5.6%), vacation (18, 4.6%), and national events (3, 0.8%). The major categories of significant life events were family and work. These categories were subdivided into further codes such as family events related to birth, birthdays, communication, family illness, death, and holidays. The work events were subdivided into codes of work programs, duties, conflicts and misunderstandings, professional identity, and job opportunities.

The qualitative codes were converted to numeric data and entered into the quantitative database to examine what qualitative codes corresponded to the same periods of the creation of certain mandala patterns and how they did so. The results of the qualitative life event codes were plotted with the creation of mandala patterns based on the timeline of events to look for overlap. In other words, all the numeric significant life event codes were graphed with the archetypal patterns along the y-axis versus the date of the event or the production of the mandala on the x-axis. These data were evaluated on the graph to see if there was any overlap of frequency for a given date or period.

From a Jungian perspective, any significant life event will be connected to an archetypal pattern (Jung, 1968). To determine what archetypal patterns relate to which events for the data in this study, it was assumed that each of the resulting archetypal patterns observed (if any) and significant events noted (if any) would have a 50% chance of occurring together at any given time. A chi-square analysis was considered to see if there was an overlap that was more than random. However, a chi-square analysis could not be performed because the dates of significant life events were not the same dates on which the mandalas were created. Yet, the pattern of overlap could be determined. The results of the visual comparison of the graph revealed that the creation of Archetypal Mandala Patterns 13, 27, 33, and 34 corresponded to significant life events. The Archetypal Mandala Pattern 13, MARI Stage 2, corresponded to transitions of school and work where multiple opportunities for the development of the person's potential with respect to knowledge and skills existed.

The Archetypal Mandala Pattern 27, MARI Stage 6, corresponded to conflicts and to misunderstandings at work, to decisions to be made regarding job opportunities, and to the establishment of boundaries and the development of

a productive work ethic. The Archetypal Mandala Pattern 33, MARI Stage 8, corresponded to professional identity in the form of publications, obtaining job titles and positions, and earning credentials. The Archetypal Mandala Pattern 34, MARI Stage 11, also corresponded to transitions but had to do with those involving the nature of the disintegration of the ego. These experiences involving the disintegration of the ego into chaos were due to beginning and endings related to work, school, residence, and death of friends and family.

To analyze hypothesis #c, the resulting archetypal pattern analysis and date creation results were compared to the timeline of significant coded events and the dates of those events above. These two datasets were compared to the literature on the MARI stages to determine if this dataset related to certain types of significant life events according to the literature. These results are discussed in the next section.

## Discussion

The results demonstrate that archetypal patterns based on Kellogg's Great Round in the MARI exist in mandalas created by the first author. Four MARI stages and four archetypal mandala patterns were significant for her over the 15 years. The MARI stages were 2 (bliss), 6 (dragon fight/struggle), 8 (identity), and 11 (fragmentation/disintegration). These stages related to transitions and change, conflicts and misunderstandings, professional identity, and fragmentation and chaos. The significant life events related to family, friends, work, and education. Each of the four stages was in one of the four quadrants in the Great Round cycle.

This result suggests movement through the Great Round cycle, which would be examples of personal growth and change during this 15-year period. This movement through the stages of the Great Round is an example of movement through the process of individuation (Jung, 1968) for the first author. These results provide support for the use of the creation of mandalas and the MARI clinical tool in treatment planning and progress evaluation to support an individual's growth in their process of individuation (Jung, 1968). Like Jung's clients (Jung, 1968), Couch (1997) suggested using the creation of mandalas as a clinical tool in treatment planning. Frame's work with couples (Frame, 2002) and with college students (Frame, 2006) also supported the use of mandalas in treatment planning. For example, the first author was inspired to create mandalas in workshops and spontaneously over 15 years. The mandalas she created related to four specific stages of the Great Round that represent steps in her individuation process. Because the four archetypal patterns observed—bliss, dragon fight/struggle, identity, and fragmentation/disintegration—were present over 15 years for the first author, the MARI information combined with the mandala created at a given time during the 15 years could help define treatment issues.







Potash et al. (2014) noted with surprise that caretakers in hospice work resonated with this stage of bliss. The researchers related the positive and negative aspects of this stage. Workers who meditated were able to tap into the reflective nature of this stage. Workers who were caught up in the anxiety of the work and of the workload tapped into being overwhelmed by the unexploited potential. Couch (1997) described this stage as a “place of inspiration” (p. 191).

The first author’s associations corresponded to transitions of endings and beginnings of school and work. These school and work transitions presented opportunities for the manifestation of “untapped potential” and a “place of inspiration” to develop and grow into a new career. If the first author had been in therapy at the time of the creation of the mandalas with this Archetypal Pattern 13 of the MARI Stage 2 (bliss), a treatment plan could have been created to focus on how to manifest “unexploited potential” related to the school or work transitions. Evaluation of change in treatment could be demonstrated by the appearance of one of the other three archetypal patterns that were present in the dataset and the issues suggested by the MARI Stages 6, 8, and 11.

An additional archetypal pattern observed in this dataset had the arbitrary number of 27, and the design is depicted in Figure 3. The raters placed this mandala pattern in the MARI Stage 6, defined as dragon fight (Cox, 2003; Kellogg, 1984; Kellogg & Di Leo, 1982) or struggle (Takei, 2014). Issues in this stage relate to struggle, ambivalence, separation, shadow issues, and confrontation of opposites (Cox, 2003; Kellogg, 1984; Kellogg & Di Leo, 1982). Myths related to the MARI Stage 6 are the hero’s journey, the birth of the hero as a result of the struggle, the dragon fight, and the struggle with the archetypal parent (Edinger, 1972/1992; Kellogg, 1984). The individual struggles with facing this unconscious material related to parents’ views, values, and traditions of the world to decide if their parent’s beliefs are the individual’s perspectives on the world. The slaying of the dragon is the act of the individual facing their shadow and making decisions in a conscious manner of what will be their perspectives on the world. After the dragon slaying (the resolution of the inner conflict), the individual has a new sense of an individual mission.

Cox and Frame (1993) described the artist’s willingness to deal with conflict and with unresolved issues as depicted by Stage 6. Couch (1997) described this stage as a struggle with tolerating ambivalent feelings. Potash et al. (2014) noted that the images created dealing with conflict supported a cultural need for balance. The first author’s associations corresponded to conflicts and misunderstandings at work and to decisions to be made regarding job opportunities, the establishment of boundaries, and the development of a productive work ethic. The first author was dealing with conflict related to what views, values, and traditions to keep and to manifest in her work situation in order to have healthy boundaries and a productive work ethic. As a clinical tool, with the creation of Archetypal Mandala Pattern 27, clinical treatment could have shifted to helping the first author deal

Figure 3

*Archetypal Mandala Pattern 27, Stage 6 (dragon fight/struggle) (ID = 93)*

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with struggles related to work conflicts and job opportunities. Treatment progress again could be evaluated with the creation of other mandalas, specifically those numbered 33 and 34.

A third archetypal pattern observed was given the arbitrary number of 33, and the design is depicted in Figure 4. This mandala pattern is of the MARI Stage 8, the functioning ego (Cox, 2003; Kellogg, 1984; Kellogg & Di Leo, 1982) or identity (Takei, 2014). Stage 8 deals with issues related to self-identity, autonomy, and individuality (Cox, 2003; Kellogg, 1984; Kellogg & Di Leo, 1982). The archetypes related to the MARI Stage 8 are da Vinci's man in the star, being an individual, and having a fully differentiated ego (Kellogg, 1984). This stage focuses

Figure 4

*Archetypal Mandala Pattern 33, Stage 8 (identity) (ID = 60)*



on the development of one's talents to be a specialist or a master in a field of study (Robertson, 1995). The first author's associations depicted in this stage relate to professional identity in the form of establishing one's self with publications, new titles, and credentials. She obtained a Ph.D., published research, obtained an academic position, and obtained licensure and certification in her field of study. If in therapy, clinical treatment could have shifted to assisting with support of the first author's professional development.

The final archetypal pattern observed had the arbitrary number of 34, and the design is depicted in Figure 5. This mandala pattern belongs to the MARI Stage 11, which refers to fragmentation, ego disintegration, and chaos (Kellogg, 1984; Kellogg & Di Leo, 1982; Takei, 2014). The archetypal experience of MARI



Figure 5

*Archetypal Mandala Pattern 34, Stage 11 (fragmentation/disintegration) (ID = 92)*



Stage 11 is the dark night of the soul (Edinger, 1972/1992). In this situation, the ego is aligned with the Self and thus identifies unconsciously with God. The ego, therefore, cannot experience the Self as long as it identifies unconsciously with “God.” A period of alienation occurs for the person to separate the ego from being aligned with the Self, resulting in the loss of ego self-identity. At that point, a religious, numinous experience can occur. The central image of the Christian myth of the crucifixion of Jesus is the ultimate image of the dark night of the soul (Edinger, 1972/1992). Jesus, the man, is forsaken, betrayed, and abandoned. He must trust, let go, and transcend to be reborn as the Christ. The dark night of the soul involves an alienation experience, a separation, and a loss of ego, resulting then in a religious experience (Jung, 1968).

Potash et al. (2014) noted that the presence of Stage 11 (fragmentation and chaos) may illustrate that unresolved issues may be stirred by the caregivers working in palliative care. Couch (1997) noted that for patients with dementia, the issue of fragmentation of the ego was real as the disease progressed. Similarly, cardiac and cancer patients preferred Stage 11 as they experienced a “falling apart” or a “letting go” related to the painful reality of their diseases (Bruscia et al., 2007).

The first author’s associations to the dark night of the soul corresponded to many life transitions. These experiences involving the disintegration of the ego into chaos were due to beginnings and endings related to work, school, residence, and death of friends and family. As part of the experience of these life transitions, the loss of the “old” has to be processed and released for the “new” to have space to grow. Each event required that the first author re-evaluate self, values, beliefs, and life goals.

Since 15 years of her life were depicted in the mandala set, experiencing such losses was not surprising. If in treatment with the creation of this mandala pattern, therapeutic support for the first author could have been rendered focusing on grief and letting go during transitional moments in her life. With the manifestation of four archetypal patterns present in the mandalas, change in the first author’s life was documented and could have been supported in clinical treatment. Similar to Jung (1968, 1969) noting that his clients depicted mandalas spontaneously at times of unrest and represented their individuation process through them, the mandalas represented here are depictions of the stages in the first author’s individuation process.

### **Limitations**

There are many limitations to this mixed-methods study. The major limitation is that this study focuses on the subjective experience of one person, the first author of this study. Both the qualitative and the quantitative results are therefore biased. The results cannot be generalized to broader populations.

Another limitation involves the interrater reliability results for the pre-existing mandala set. Although the interrater reliability correlation for the eight standard mandalas was 0.997, the correlation for the pre-existing mandala set of 85 was only 0.297. The standard art media required for the MARI was used to create the eight standard mandalas. The mandalas in the pre-existing set were created spontaneously in workshops or independently using multiple media. The variety of media or the lack of standard media may have impacted rater evaluation. Also, there could have been more follow-up concerning rater training during the data evaluation process. The raters also noted that there were problems with distinguishing two of the designs in the analysis form depicting the 39 mandala patterns. Designs 2 and 6 were indistinguishable. Also, an additional limitation is that the pre-existing mandala set was not created in a therapeutic setting.

### **Implications for Counselling Practice**

Knowledge of the Great Round and of its use with the MARI offers evidence to note changes and issues in a person's life that can include therapeutic change (Jung, 1968, 1969; Kellogg et al., 1977; Kellogg, 1984). As mentioned earlier in the paper, Jung (1969) noted that his clients spontaneously created mandalas "principally during times of psychic disorientation and re-orientation" (pp. 31–32). Also, this study offers empirical data that support the premise that the Great Round can be used to describe a range of human experiences over the lifetime of individuals such as in the work of Potash et al. (2014). The stages are useful as qualitative codes. Any mandala created can be compared to the Great Round to gain insight regarding the life experience of the mandala creator concerning their individuation process. The creation of mandalas and their meanings can add value to the therapeutic relationship, treatment planning, and treatment progress for counsellors and clinicians because the research demonstrated statistically significant results of changes in the archetypal patterns over time and related to the individual's life. Clinicians can obtain additional training in the creation of the mandala and the MARI tool to define treatment plans and evaluate change and/or progress in the clinical treatment (MARI®, n.d.).

### **Recommendations for Further Research**

The design of this mixed-methods study allows for its replication to offer empirical data in support of Jung's theory of archetypes and Kellogg's theory of the Great Round of mandalas. Future studies can use the research protocol to apply the questions to a larger sample size, to a different population, and to clinical populations. To that end, the authors propose the following research question: "Do mandalas exhibit archetypal patterns and MARI stages for graduate students in art therapy?"

To add rigour, we would recommend the use of the eight standard mandalas to any mandala dataset to establish interrater reliability for multiple raters. We would also recommend calculating the interrater reliability for the mandala set.

### **Conclusions**

Based on the research questions and the results of this study, we can conclude that the mandalas created do exhibit archetypal patterns, as defined by Kellogg's Great Round, that relate to the first author's individuation process and to theories proposed by Jung (1968, 1969). Like the work of Cox and Frame (1993), Couch (1997), and Potash et al. (2014), the authors categorized mandala drawings. We gathered empirical evidence to support Kellogg's (1984) theory about mandala archetypal patterns and stages in the Great Round as related to the first author's life experiences. We gathered descriptive data on the mandalas created, such as type of art medium, size, and colour.

To add rigour to the analysis, eight standard mandalas were added as controls to evaluate the reliability of the raters. Two raters trained in the use of the MARI instrument for the use in therapy were employed to evaluate the mandalas. Interrater reliability of the eight standard mandalas for the two raters yielded a correlation of 0.997.

The results demonstrated that four stages and four archetypal mandala patterns were significant over the 15-year period in which the first author created the mandalas in the set. The four MARI stages were not random. The stages were 2 (bliss), 6 (dragon fight/struggle), 8 (identity), and 11 (fragmentation/disintegration). The archetypal patterns observed relate to the archetype of dismemberment, the hero's journey, da Vinci's man in the star, and the dark night of the soul. These stages related to transitions and change, conflicts and misunderstandings, professional identity, and fragmentation and chaos. The significant life events related to family, friends, work, and education. These conclusions add credence to the use of mandalas along with a framework such as Jung's archetypal patterns and the MARI throughout the therapeutic process for counsellors to use with the appropriate training. The first author continues on her life's journey and creates mandalas to be centred, to be balanced, and to grow.

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